David L Wilson

List of Publications by Year
in descending order

111	2,268	218592	276775
papers	citations	26 h-index	41 g-index

113	113	113	2551
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	MRI detection of breast cancer micrometastases with a fibronectin-targeting contrast agent. Nature Communications, 2015, 6, 7984.	5.8	215
2	Perceptual comparison of pulsed and continuous fluoroscopy. Medical Physics, 1994, 21, 245-256.	1.6	116
3	Volumetric quantification of fibrous caps using intravascular optical coherence tomography. Biomedical Optics Express, 2012, 3, 1413.	1.5	79
4	3D Cryoâ€Imaging: A Very Highâ€Resolution View of the Whole Mouse. Anatomical Record, 2009, 292, 342-351.	0.8	76
5	Semiautomatic segmentation and quantification of calcified plaques in intracoronary optical coherence tomography images. Journal of Biomedical Optics, 2010, 15, 061711.	1.4	71
6	Method to correct intensity inhomogeneity in MR images for atherosclerosis characterization. IEEE Transactions on Medical Imaging, 2006, 25, 539-552.	5.4	63
7	Automatic stent detection in intravascular OCT images using bagged decision trees. Biomedical Optics Express, 2012, 3, 2809.	1.5	51
8	Radiofrequency thermal ablation: Correlation of hyperacute MR lesion images with tissue response. Journal of Magnetic Resonance Imaging, 2004, 20, 475-486.	1.9	50
9	3-D Stent Detection in Intravascular OCT Using a Bayesian Network and Graph Search. IEEE Transactions on Medical Imaging, 2015, 34, 1549-1561.	5.4	50
10	Novel Cryo-Imaging of the Glioma Tumor Microenvironment Reveals Migration and Dispersal Pathways in Vivid Three-Dimensional Detail. Cancer Research, 2011, 71, 5932-5940.	0.4	48
11	Automated plaque characterization using deep learning on coronary intravascular optical coherence tomographic images. Biomedical Optics Express, 2019, 10, 6497.	1.5	48
12	Evaluation of 3D image registration as applied to MR-guided thermal treatment of liver cancer. Journal of Magnetic Resonance Imaging, 1998, 8, 77-84.	1.9	46
13	Deep neural networks for A-line-based plaque classification in coronary intravascular optical coherence tomography images. Journal of Medical Imaging, 2018, 5, 1.	0.8	46
14	Increased adiposity in the retinol saturaseâ€knockout mouse. FASEB Journal, 2010, 24, 1261-1270.	0.2	45
15	MRI-guided Thermal Ablation Therapy: Model and Parameter Estimates to Predict Cell Death from MR Thermometry Images. Annals of Biomedical Engineering, 2007, 35, 1391-1403.	1.3	41
16	Fully automated plaque characterization in intravascular OCT images using hybrid convolutional and lumen morphology features. Scientific Reports, 2020, 10, 2596.	1.6	41
17	Automatic 3D Registration for Interventional MRI-Guided Treatment of Prostate Cancer. Computer Aided Surgery, 2002, 7, 257-267.	1.8	36
18	Computational and human observer image quality evaluation of low dose, knowledgeâ€based CT iterative reconstruction. Medical Physics, 2015, 42, 6098-6111.	1.6	35

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19	Coronary calcification segmentation in intravascular OCT images using deep learning: application to calcification scoring. Journal of Medical Imaging, 2019, 6, 1.	0.8	35
20	An adaptive reference/test paradigm: Application to pulsed fluoroscopy perception. Behavior Research Methods, 1998, 30, 332-348.	1.3	30
21	Segmentation of Coronary Calcified Plaque in Intravascular OCT Images Using a Two-Step Deep Learning Approach. IEEE Access, 2020, 8, 225581-225593.	2.6	30
22	Perception of fluoroscopy last-image hold. Medical Physics, 1994, 21, 1875-1883.	1.6	29
23	Radio-frequency-induced thermal lesions: Subacute magnetic resonance appearance and histological correlation. Journal of Magnetic Resonance Imaging, 2003, 18, 487-495.	1.9	28
24	Partial Volume Reduction by Interpolation with Reverse Diffusion. International Journal of Biomedical Imaging, 2006, 2006, 1-13.	3.0	28
25	Quantitative image quality evaluation of MR images using perceptual difference models. Medical Physics, 2008, 35, 2541-2553.	1.6	28
26	Removal of Out-of-Plane Fluorescence for Single Cell Visualization and Quantification in Cryo-Imaging. Annals of Biomedical Engineering, 2009, 37, 1613-1628.	1.3	28
27	Validation of a human vision model for image quality evaluation of fast interventional magnetic resonance imaging. Journal of Electronic Imaging, 2002, 11, 224.	0.5	27
28	Robust GRAPPA reconstruction and its evaluation with the perceptual difference model. Journal of Magnetic Resonance Imaging, 2008, 27, 1412-1420.	1.9	27
29	Whole mouse cryo-imaging. Proceedings of SPIE, 2008, 6916, 69161I-69161I9.	0.8	27
30	Cryo-image Analysis of Tumor Cell Migration, Invasion, and Dispersal in a Mouse Xenograft Model of Human Glioblastoma Multiforme. Molecular Imaging and Biology, 2012, 14, 572-583.	1.3	27
31	Pulsed fluoroscopy detectability from interspersed adaptive forced-choice measurements. Medical Physics, 1996, 23, 1833-1843.	1.6	25
32	Parameter estimation of atherosclerotic tissue optical properties from three-dimensional intravascular optical coherence tomography. Journal of Medical Imaging, 2015, 2, 016001.	0.8	25
33	Artificial Intelligence in Intracoronary Imaging. Current Cardiology Reports, 2020, 22, 46.	1.3	24
34	Automated A-line coronary plaque classification of intravascular optical coherence tomography images using handcrafted features and large datasets. Journal of Biomedical Optics, 2019, 24, 1.	1.4	24
35	Removal of subsurface fluorescence in cryo-imaging using deconvolution. Optics Express, 2010, 18, 22324.	1.7	23
36	Automated stent coverage analysis in intravascular OCT (IVOCT) image volumes using a support vector machine and mesh growing. Biomedical Optics Express, 2019, 10, 2809.	1.5	23

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37	Effects of motion blurring in x-ray fluoroscopy. Medical Physics, 1998, 25, 587-599.	1.6	22
38	Estimation of Tendon Moment Arms from Three-Dimensional Magnetic Resonance Images. Annals of Biomedical Engineering, 1999, 27, 247-256.	1.3	22
39	Reproducible MRI measurement of adipose tissue volumes in genetic and dietary rodent obesity models. Journal of Magnetic Resonance Imaging, 2008, 28, 915-927.	1.9	21
40	Learning With Fewer Images via Image Clustering: Application to Intravascular OCT Image Segmentation. IEEE Access, 2021, 9, 37273-37280.	2.6	21
41	Lack of dystrophin results in abnormal cerebral diffusion and perfusion in vivo. NeuroImage, 2014, 102, 809-816.	2.1	20
42	Automatic Stem Cell Detection in Microscopic Whole Mouse Cryo-Imaging. IEEE Transactions on Medical Imaging, 2016, 35, 819-829.	5.4	20
43	The x-ray fovea, a device for reducing x-ray dose in fluoroscopy. Medical Physics, 1994, 21, 471-481.	1.6	19
44	Single cell molecular recognition of migrating and invading tumor cells using a targeted fluorescent probe to receptor PTPmu. International Journal of Cancer, 2013, 132, 1624-1632.	2.3	19
45	Degradation modeling of poly-l-lactide acid (PLLA) bioresorbable vascular scaffold within a coronary artery. Nanotechnology Reviews, 2020, 9, 1217-1226.	2.6	18
46	Application of perceptual difference model on regularization techniques of parallel MR imaging. Magnetic Resonance Imaging, 2006, 24, 123-132.	1.0	17
47	Visualization of color anatomy and molecular fluorescence in whole-mouse cryo-imaging. Computerized Medical Imaging and Graphics, 2011, 35, 195-205.	3.5	17
48	Quantitative and qualitative evaluation of deep learning automatic segmentations of corneal endothelial cell images of reduced image quality obtained following cornea transplant. Journal of Medical Imaging, 2020, 7, 1.	0.8	17
49	Removal of local and biased global maxima in intensity-based registration. Medical Image Analysis, 2007, 11, 183-196.	7.0	16
50	A Protease-Activated Fluorescent Probe Allows Rapid Visualization of Keratinocyte Carcinoma during Excision. Cancer Research, 2020, 80, 2045-2055.	0.4	15
51	Application and Evaluation of Highly Automated Software for Comprehensive Stent Analysis in Intravascular Optical Coherence Tomography. Scientific Reports, 2020, 10, 2150.	1.6	15
52	Hemodynamic alternations following stent deployment and post-dilation in a heavily calcified coronary artery: In silico and ex-vivo approaches. Computers in Biology and Medicine, 2021, 139, 104962.	3.9	15
53	Optimal data acquisition for volumetric intracoronary ultrasound. Catheterization and Cardiovascular Diagnosis, 1994, 32, 288-299.	0.7	14
54	Body composition analysis of obesity and hepatic steatosis in mice by relaxation compensated fat fraction (RCFF) MRI. Journal of Magnetic Resonance Imaging, 2012, 35, 837-843.	1.9	12

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55	Machine learning for segmenting cells in corneal endothelium images. , 2019, 10950, .		12
56	Magnetic resonance molecular imaging of extradomain B fibronectin enables detection of pancreatic ductal adenocarcinoma metastasis. Magnetic Resonance Imaging, 2022, 86, 37-45.	1.0	12
57	Cryo-Imaging and Software Platform for Analysis of Molecular MR Imaging of Micrometastases. International Journal of Biomedical Imaging, 2018, 2018, 1-16.	3.0	11
58	Cryo-imaging of Stem Cell Biodistribution in Mouse Model of Graft-Versus-Host-Disease. Annals of Biomedical Engineering, 2020, 48, 1702-1711.	1.3	11
59	Mechanical performances of balloon post-dilation for improving stent expansion in calcified coronary artery: Computational and experimental investigations. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 121, 104609.	1.5	11
60	Optical Coherence Tomography-Based Modeling of Stent Deployment in Heavily Calcified Coronary Lesion. Journal of Biomechanical Engineering, 2020, 142, .	0.6	11
61	Molecular imaging and validation of margins in surgically excised nonmelanoma skin cancer specimens. Journal of Medical Imaging, 2019, 6, 1.	0.8	10
62	Three-dimensional comparison of interventional MR radiofrequency ablation images with tissue responseâ€. Computer Aided Surgery, 2004, 9, 185-191.	1.8	10
63	Impact of Calcium Quantifications on Stent Expansions. Journal of Biomechanical Engineering, 2019, 141, .	0.6	9
64	Voxel-based plaque classification in coronary intravascular optical coherence tomography images using decision trees. , 2018, 10575, .		9
65	Improved fat-water reconstruction algorithm with graphics hardware acceleration. Journal of Magnetic Resonance Imaging, 2010, 31, 457-465.	1.9	8
66	Fast Lipid And Water Levels by Extraction with Spatial Smoothing (FLAWLESS): Threeâ€dimensional volume fat/water separation at 7 Tesla. Journal of Magnetic Resonance Imaging, 2011, 33, 1464-1473.	1.9	8
67	Modeling nonâ€stationarity of kernel weights for kâ€space reconstruction in partially parallel imaging. Medical Physics, 2011, 38, 4760-4773.	1.6	8
68	Comparison of quantitative myocardial perfusion imaging CT to fluorescent microsphere-based flow from high-resolution cryo-images. Proceedings of SPIE, 2016, 9788, .	0.8	8
69	Classification of calcium in intravascular OCT images for the purpose of intervention planning. , 2016, 9786, .		8
70	Nuclei Detection for 3D Microscopy With a Fully Convolutional Regression Network. IEEE Access, 2021, 9, 60396-60408.	2.6	8
71	Dynamic myocardial perfusion in a porcine balloon-induced ischemia model using a prototype spectral detector CT. , 2015, 9417, .		7
72	Enhanced coronary calcium visualization and detection from dual energy chest x-rays with sliding organ registration. Computerized Medical Imaging and Graphics, 2018, 64, 12-21.	3.5	7

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73	Clinical 3D Imaging of the Anterior Segment With Ultrasound Biomicroscopy. Translational Vision Science and Technology, 2021, 10, 11.	1.1	7
74	Deep learning segmentation of coronary calcified plaque from intravascular optical coherence tomography (IVOCT) images with application to finite element modeling of stent deployment. , 2019, , .		7
75	3D registration of intravascular optical coherence tomography and cryo-image volumes for microscopic-resolution validation. , 2016, 9788, .		6
76	Three-dimensional registration of intravascular optical coherence tomography and cryo-image volumes for microscopic-resolution validation. Journal of Medical Imaging, 2016, 3, 1.	0.8	6
77	Detection and quantification of coronary calcium from dual energy chest xâ€rays: Phantom feasibility study. Medical Physics, 2017, 44, 5106-5119.	1.6	6
78	Detection of coronary calcifications with dual energy chest X-rays: clinical evaluation. International Journal of Cardiovascular Imaging, 2021, 37, 767-774.	0.7	6
79	Quantitative analysis of metastatic breast cancer in mice using deep learning on cryo-image data. Scientific Reports, 2021, 11, 17527.	1.6	6
80	Non-invasive Imaging in the Evaluation of Cardiac Allograft Vasculopathy in Heart Transplantation: A Systematic Review. Current Problems in Cardiology, 2022, 47, 101103.	1.1	6
81	Deep learning segmentation and quantification method for assessing epicardial adipose tissue in CT calcium score scans. Scientific Reports, 2022, 12, 2276.	1.6	6
82	Three-Dimensional Fourier-Domain Optical Coherence Tomography Imaging: Advantages and Future Development. Current Cardiovascular Imaging Reports, 2012, 5, 221-230.	0.4	5
83	Dynamic CT myocardial perfusion imaging: detection of ischemia in a porcine model with FFR verification. , 2014, 9038, .		5
84	Calibrationâ€free beam hardening correction for myocardial perfusion imaging using CT. Medical Physics, 2019, 46, 1648-1662.	1.6	5
85	Generation of Virtual Dual Energy Images from Standard Single-Shot Radiographs Using Multi-scale and Conditional Adversarial Network. Lecture Notes in Computer Science, 2019, , 298-313.	1.0	5
86	Dynamic Patterns of Migration and Expansion of Hematopoiesis during MGMT Mediated Drug Selection.. Blood, 2004, 104, 156-156.	0.6	5
87	Digital subtraction peripheral angiography using image stacking: Initial clinical results. Medical Physics, 2001, 28, 1482-1492.	1.6	4
88	Three-dimensional comparison of interventional MR radiofrequency ablation images with tissue response. Computer Aided Surgery, 2004, 9, 185-191.	1.8	4
89	Low dose dynamic myocardial CT perfusion using advanced iterative reconstruction. , 2015, 9417, .		4
90	Human Multipotent Adult Progenitor Cells Effectively Reduce Graft-vs-Host Disease While Preserving Graft-Vs-Leukemia Activity. Stem Cells, 2021, 39, 1506-1519.	1.4	4

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91	Recovery of chemical estimates by field inhomogeneity neighborhood error detection (REFINED): Fat/Water separation at 7 tesla. Journal of Magnetic Resonance Imaging, 2013, 37, 1247-1253.	1.9	3
92	Hepatic fat during fasting and refeeding by MRI fat quantification. Journal of Magnetic Resonance Imaging, 2015, 41, 347-353.	1.9	3
93	Improved reproducibility of calcium mass score using deconvolution and partial volume correction. , 2019, , .		3
94	Co-registration of pre- and post-stent intravascular OCT images for validation of finite element model simulation of stent expansion. , 2020, 11317, .		3
95	K-space reconstruction with anisotropic kernel support (KARAOKE) for ultrafast partially parallel imaging. Medical Physics, 2011, 38, 6138-6142.	1.6	2
96	Validation of parameter estimation methods for determining optical properties of atherosclerotic tissues in intravascular OCT. Proceedings of SPIE, 2014, 9037, .	0.8	2
97	Comparison of computational to human observer detection for evaluation of CT low dose iterative reconstruction. , 2014, 9037, .		2
98	Processing to determine optical parameters of atherosclerotic disease from phantom and clinical intravascular optical coherence tomography three-dimensional pullbacks. Journal of Medical Imaging, 2016, 3, 024501.	0.8	2
99	Comparison of automated beam hardening correction (ABHC) algorithms for myocardial perfusion imaging using computed tomography. Medical Physics, 2021, 48, 287-299.	1.6	2
100	SLICR super-voxel algorithm for fast, robust quantification of myocardial blood flow by dynamic computed tomography myocardial perfusion imaging. Journal of Medical Imaging, 2019, 6, 1.	0.8	2
101	Microscopic validation of whole mouse micro-metastatic tumor imaging agents using cryo-imaging and sliding organ image registration. , 2016, 9788, .		1
102	Effect of beam hardening on transmural myocardial perfusion quantification in myocardial CT imaging. , 2016, 9788, .		1
103	OCT-Based Three Dimensional Modeling of Stent Deployment. , 2017, 3, .		1
104	Target Lesion Calcium Arc Influence the Performance of Stenting. , 2017, 2017, .		1
105	Automatic A-line coronary plaque classification using combined deep learning and textural features in intravascular OCT images. , 2020, 11315, .		1
106	Fractional Flow Reserve (FFR) Estimation from OCT-Based CFD Simulations: Role of Side Branches. Applied Sciences (Switzerland), 2022, 12, 5573.	1.3	1
107	Marking arteries and catheters in x-ray fluoroscopy using morphological filtering. , 1992, , .		0
108	Reduction in Resorption Cavity Size following Anti-Resorptive Drug Treatment. , 2013, , .		0

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109	TECHNIQUES IN X-RAY COMPUTED TOMOGRAPHY IN THE EVALUATION OF DRUG RELEASE SYSTEMS AND THEIR APPLICATION. , 2005, , 105-131.		0
110	IMAGE REGISTRATION AND FUSION FOR INTERVENTIONAL MRI-GUIDED TREATMENT OF PROSTATE CANCER. , 2005, , 285-310.		0
111	SLIC robust (SLICR) processing for fast, robust CT myocardial blood flow quantification. , 2018, 10578, .		0